

Tool Box Talk

RESPIRATORY PROTECTION

JULY 2014

Respirators protect workers against hazards such as insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapours and sprays. These hazards have the potential to cause both immediate and long-term effects such as lung impairment, cancer, other diseases or even death.

Employers should have a written respirator program that describes the proper procedures for selecting, fit testing, training, using, caring, cleaning and sanitizing, inspecting and record keeping, storing and operating respiratory protective equipment.

Fit Testing & Seal Check

For proper protection, a worker must ensure the respirator they are using fits and functions properly. This means the equipment must be the proper size and seals to the face.

A fit test is to be conducted by a competent person properly trained in fit testing to ensure the equipment is the correct size. A fit test is required before a worker uses any respirator for the first time, then must also be conducted on at least an annual basis. Fit tests may need to be performed more frequently if there has been changes to a workers body such as a significant gain or loss in weight, or facial changes such as dentures or broken jaw bone.

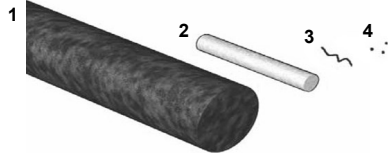
A seal check is to be performed by the worker prior to use of the respirator every time it is used. Use the positive and negative seal tests outlined in the respirator safety manual to verify the seal. Regular seal checks are necessary to ensure that contaminated air or particles will not leak into the respirator. If it doesn't fit or seal properly, don't use it!

Facial Hair & Respirators

It is critical to your personal health and wellbeing to ensure that you have a proper seal when wearing a respirator for protection. This means that workers need to be clean shaven before their shift begins, and possibly part way through, as beards, sideburns, moustaches, and stubble prevent a good seal and are not permitted with respirator use.

Particulate size from left to right:

1. Human Hair
2. Glass Insulation Fibre
3. Asbestos Fibre
4. Fume Particles



As you can see, the size of a facial hair is much larger than the size of particulate you are trying to protect yourself from. If you do not have a proper seal due to facial hair, you won't be properly protected as smaller particles such as fibres and fumes will be able to pass through.

Choosing The Right Respirator

Choosing the right respirator to protect workers from airborne contaminants is essential. Respirators may not protect you from all contaminants as different contaminants require different protection. There are limitations for each type of respirator and you must be familiar with them prior to using them.

General precautionary information can be found in the manufactures operating manual. However, it may be necessary to seek the assistance of an experienced safety professional or occupational hygienist who is familiar with the actual workplace environment and contaminants.

Types Of Respirators



- Disposable particulate respirators provide minimum protection and are typically used to protect against nuisance dusts and fumes.
- Full mask and half mask air purifying respirators use cartridges and particulate filters. Air purifying respirators only work if you use the right cartridge and/or filter for the specific contaminant. Mechanical filters will block solid particles, while chemical filters soak up substances.
- Supplied air respirators can come in a variety of forms such as self contained breathing apparatuses, air hoods, full body suits, and airlines or work packs.

The Key To Respiratory Safety

First you must recognize that the airborne hazards exist through pre-job planning. It is vital to recognise all the chemicals, materials and hazards you may be exposed to, as well as conducting frequent hazard assessments and workplace inspections to help identify and control those hazards.

A plan must be implemented to protect the health of all workers by assessing the environment, implementing engineering controls, having safety data sheets available, choosing the right respiratory protection and other personal protective equipment for the specific hazards.

Protect your health and familiarize yourself with the Occupational Health & Safety Regulations:

- Section 88 Respiratory protective devices
- Section 89 Inspection of respiratory protective devices



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